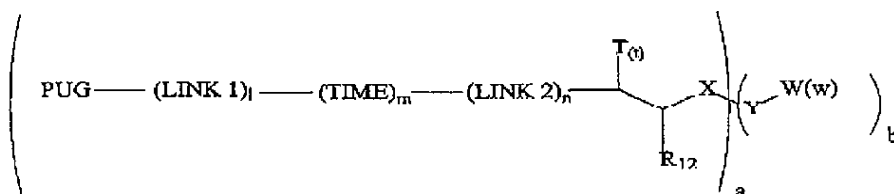


**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended) A ~~photographic or~~ photothermographic ~~or thermographic~~ imaging element comprising an imaging layer having associated therewith a compound of Structure I:



wherein:

PUG is a photographically useful group;

LINK 1 and LINK 2 are linking groups;

TIME is a timing group;

l is 0 or 1;

m is 0, 1, or 2;

n is 0 or 1;

Y is C, N, O or S;

X is ~~a substituted or unsubstituted aryl group or an electron-withdrawing group;~~

W is hydrogen, halogen, or a substituted or unsubstituted alkyl, cycloalkyl, aryl or heterocyclic group, or W can combine with T or R<sub>12</sub> to form a ring, w is 0 to 3 when Y is C, w is 0-2 when Y is N, and w is 0-1 when Y is O or S, when w is

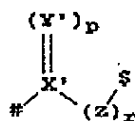
2, the two W groups can combine to form a ring, and when w is 3, two W groups can combine to form a ring or three W groups can combine to form a bicyclic substituent;

$R_{12}$  is hydrogen, or a substituted or unsubstituted alkyl, cycloalkyl, aryl or heterocyclic group or  $R_{12}$  and T can form a ring;

T is a substituted or unsubstituted alkyl, cycloalkyl, aryl or six-membered heterocyclic group, t is 0, 1, or 2, with the proviso that when X is a ~~cyano- or~~ sulfonyl group t is 1 or 2, when t is 2 the two T groups can combine to form a ring;

X is divalent, a is 1 or 2, and b is 1;

where LINK 1 and LINK 2 is independently of Structure II:



II

wherein

$X'$  represents carbon or sulfur;

$Y'$  represents oxygen, sulfur or  $N-R_1$ , where  $R_1$  is substituted or unsubstituted alkyl or substituted or unsubstituted aryl;

p is 1 or 2;

Z represents carbon, oxygen or sulfur;

r is 0 or 1;

with the proviso that when  $X'_2$  is carbon, both p and r are 1, when  $X'_2$  is sulfur,  $Y'_2$  is oxygen, p is 2 and r is 0;

# denotes the bond to PUG (for LINK 1) or TIME (for LINK 2);

\$ denotes the bond to TIME (for LINK 1) or  $T_{(1)}$  substituted carbon (for LINK 2); and

wherein PUG is a development inhibitor, bleach accelerator, bleach inhibitor, inhibitor releasing developer, dye precursor, developing agent, silver ion fixing agent, electron transfer agent, silver halide solvent, silver halide complexing agent, reductone, image toner, pre-processing or post-processing image stabilizer, nucleator, or precursor thereof; and

wherein, in a photothermographic element, said imaging layer comprises a light-sensitive silver-halide emulsion, a non-light-sensitive organic silver salt oxidizing agent, and a reducing agent for reducing silver ion to metallic silver which may be the compound of structure I and/or an additional material; and wherein, in a thermographic element, said imaging element comprises a light-sensitive silver-halide emulsion, a non-light-sensitive organic silver salt oxidizing agent, and a reducing agent for reducing silver ion to metallic silver which may be the compound of Structure I and/or an additional material.

2. (canceled)

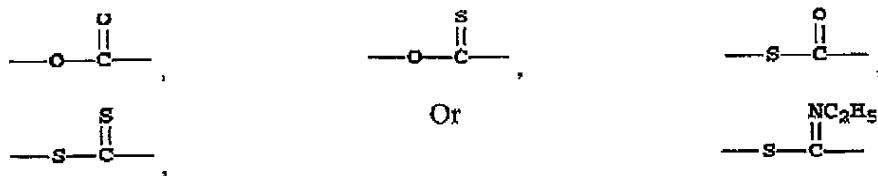
3. (previously amended) The element according to claim 1 wherein PUG is a developer.

4. (original) An imaging element according to claim 3, wherein the developer is an aminophenol, phenylenediamine, hydroquinone, pyrazolidinone, or hydrazine.

5. (original) An imaging element according to claim 4, wherein the developer is a phenylenediamine.

6. (canceled)

7. (previously amended) An imaging element according to claim 1, where LINK 1 and LINK 2 are the following:



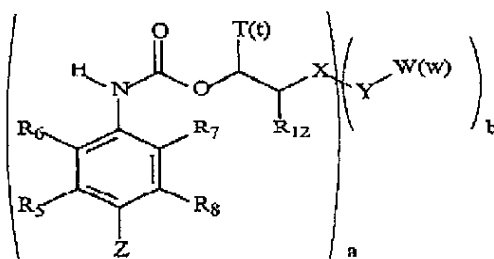
8. (original) An imaging element according to claim 7,

wherein LINK 1 is  $\text{---O---C(=O)---}$ .

9. (original) An imaging element according to claim 1, wherein TIME is a timing group selected from (1) groups utilizing an aromatic nucleophilic substitution reaction; (2) groups utilizing the cleavage reaction of a hemiacetal; (3) groups utilizing an electron transfer reaction along a conjugated system; or (4) groups using an intramolecular nucleophilic substitution reaction.

10. (original) An imaging element according to claim 1, wherein m is 0 and n is 0.

11. (currently amended) A ~~photographic, photothermographic, or thermographic~~ imaging element comprising an imaging layer having associated therewith a compound of Structure III:



III

wherein:

Z is OH or  $\text{NR}_2\text{R}_3$ , where  $\text{R}_2$  and  $\text{R}_3$  are independently hydrogen or a substituted or unsubstituted alkyl group or  $\text{R}_2$  and  $\text{R}_3$  are connected to form a ring;

$\text{R}_5$ ,  $\text{R}_6$ ,  $\text{R}_7$ , and  $\text{R}_8$  are independently hydrogen, halogen, hydroxy, amino, alkoxy, carbonamido, sulfonamido, alkylsulfonamido or alkyl, or  $\text{R}_5$  can connect with  $\text{R}_3$  or  $\text{R}_6$  and/or  $\text{R}_8$  can connect to  $\text{R}_2$  or  $\text{R}_7$  to form a ring;

T is a substituted or unsubstituted alkyl, cycloalkyl, aryl or six-membered heterocyclic group, t is 0, 1, or 2, with the proviso that when X is a ~~cyano-~~ or sulfonyl group, t is 1 or 2, when t is 2, the two T groups can combine to form a ring;

$\text{R}_{12}$  is hydrogen, or a substituted or unsubstituted alkyl, cycloalkyl, aryl or heterocyclic group or  $\text{R}_{12}$  and T or W can form a ring;

X is ~~a substituted or unsubstituted aryl group or an~~ electron-withdrawing group;

Y is C, N, O or S;

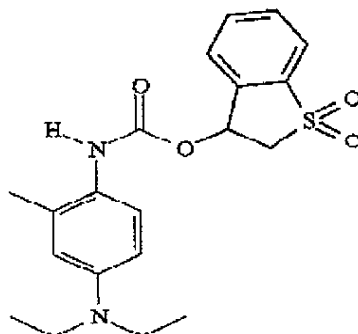
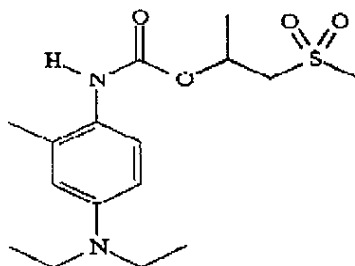
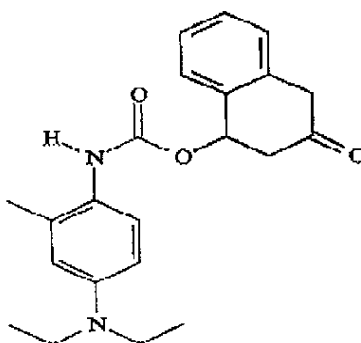
X is divalent, a is 1 or 2, and b is 1;

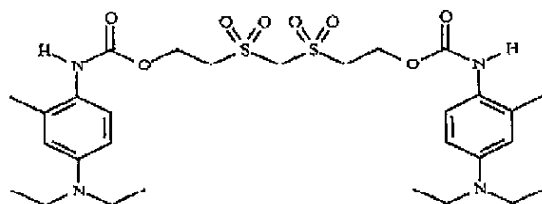
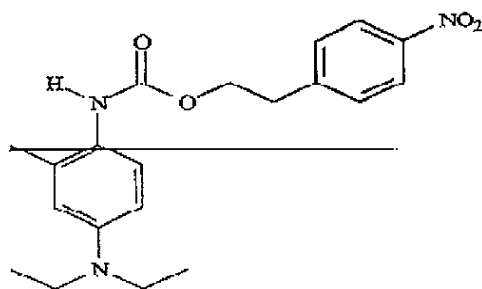
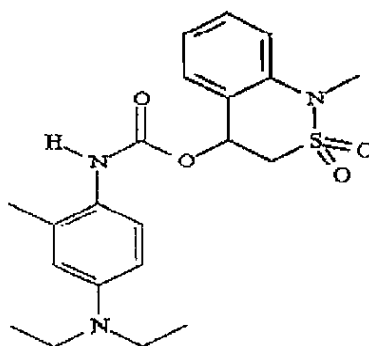
W is hydrogen, halogen, or a substituted or unsubstituted alkyl, cycloalkyl, aryl or heterocyclic group, or W can combine with T to form a ring, w is 0 to 3 when Y is C, w is 0-2 when Y is N, and w is 0-1 when Y is O or S, when w is 2, the two W groups can combine to form a ring, and when w is 3, two W groups can combine to form a ring or three W groups can combine to form a bicyclic substituent; and

wherein, in a photothermographic element, said imaging layer comprises a light-sensitive silver-halide emulsion, a non-light-sensitive organic silver salt oxidizing agent, and a reducing agent for reducing silver ion to metallic silver which may be the compound of structure III and/or an additional material; and wherein, in a thermographic element, said imaging element comprises a light-sensitive silver-halide emulsion, a non-light-sensitive organic silver salt oxidizing agent, and a reducing agent for reducing silver ion to metallic silver which may be the compound of Structure III and/or an additional material.

12. (original) An imaging element according to claim 11, wherein X is a sulfonyl or a cyano group and Z is  $\text{NR}_2\text{R}_3$ .

13. (previously amended) An imaging element according to claim 11, wherein the compound of Structure III is of the formula:





14. (original) An imaging element according to claim 1 which is a photothermographic element.

15. (canceled)

16. (original) An imaging element according to claim 1, which is a photographic element.

17. (original) An imaging element according to claim 16, wherein the photographic element contains an imaging layer comprises a silver halide emulsion.

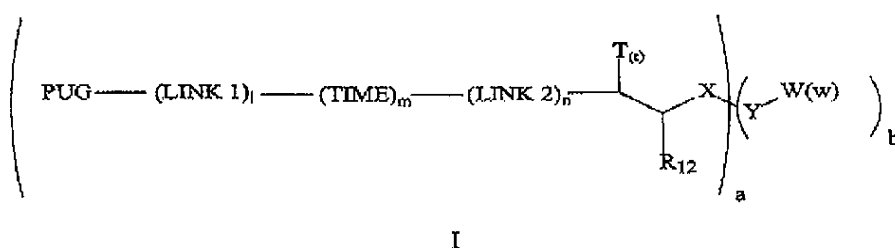
18. (original) An imaging element according to claim 1 which is a thermographic element.

19. (canceled)

20. (original) An imaging element according to claim 1, wherein the compound of Structure I is in the imaging layer.

21. - 41. (canceled)

42. (currently amended) A photothermographic or thermographic imaging element comprising an imaging layer having associated therewith a compound of Structure I:



wherein:

PUG is a developing agent;

LINK 1 and LINK 2 are linking groups;



TIME is a timing group;

l is 0 or 1;

m is 0, 1, or 2;

n is 0 or 1;

Y is C, N, O or S;

X is a substituted or unsubstituted aryl group or an electron-withdrawing group;

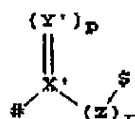
W is hydrogen, halogen, or a substituted or unsubstituted alkyl, cycloalkyl, aryl or heterocyclic group, or W can combine with T or R<sub>12</sub> to form a ring, w is 0 to 3 when Y is C, w is 0-2 when Y is N, and w is 0-1 when Y is O or S, when w is 2, the two W groups can combine to form a ring, and when w is 3, two W groups can combine to form a ring or three W groups can combine to form a bicyclic substituent;

R<sub>12</sub> is hydrogen, or a substituted or unsubstituted alkyl, cycloalkyl, aryl or heterocyclic group or R<sub>12</sub> and T can form a ring;

T is a substituted or unsubstituted alkyl, cycloalkyl, aryl or six-membered heterocyclic group, t is 0, 1, or 2, with the proviso that when X is a ~~cyano or~~ sulfonyl group t is 1 or 2, when t is 2 the two T groups can combine to form a ring;

X is divalent, a is 1 or 2, and b is 1;

where LINK 1 and LINK 2 is independently of Structure II:



II

wherein

X' represents carbon or sulfur;

$Y_2$  represents oxygen, sulfur or  $N-R_1$ , where  $R_1$  is substituted or unsubstituted alkyl or substituted or unsubstituted aryl;

$p$  is 1 or 2;

$Z$  represents carbon, oxygen or sulfur;

$r$  is 0 or 1;

with the proviso that when  $X_2$  is carbon, both  $p$  and  $r$  are 1, when  $X_2$  is sulfur,  $Y_2$  is oxygen,  $p$  is 2 and  $r$  is 0;

# denotes the bond to PUG (for LINK 1) or TIME (for LINK 2);

\$ denotes the bond to TIME (for LINK 1) or  $T_{(0)}$  substituted carbon (for LINK 2); and

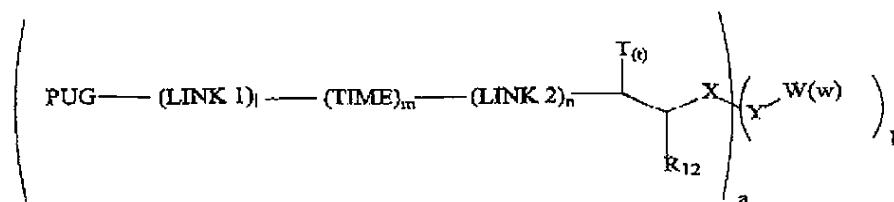
wherein, in a photothermographic element, said imaging layer comprises a light-sensitive silver-halide emulsion, a non-light-sensitive organic silver salt oxidizing agent, and a reducing agent for reducing silver ion to metallic silver which may be the compound of structure I and/or an additional material; and wherein, in a thermographic element, said imaging element comprises a light-sensitive silver-halide emulsion, a non-light-sensitive organic silver salt oxidizing agent, and a reducing agent for reducing silver ion to metallic silver which may be the compound of Structure I and/or an additional material. --

43. (previously presented) The imaging element of claim 1 wherein  $a$  is 2.

44. (previously presented) The imaging element of claim 11 wherein  $a$  is 2.

45. (previously presented) The imaging element of claim 42 wherein  $a$  is 2.

46. (currently amended) A ~~photographic~~, photothermographic, or thermographic imaging element comprising an imaging layer having associated therewith a compound of Structure I:



1

wherein:

PUG is a developing agent;

LINK 1 and LINK 2 are linking groups;

TIME is a timing group;

l is 0 or 1;

m is 0, 1, or 2;

n is 0 or 1;

Y is C, N, O or S;

X is ~~a substituted or unsubstituted aryl group or an electron-withdrawing~~ group;

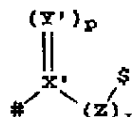
W is hydrogen, halogen, or a substituted or unsubstituted alkyl, cycloalkyl, aryl or heterocyclic group, or W can combine with T or R<sub>12</sub> to form a ring, w is 0 to 3 when Y is C, w is 0-2 when Y is N, and w is 0-1 when Y is O or S, when w is 2, the two W groups can combine to form a ring, and when w is 3, two W groups can combine to form a ring or three W groups can combine to form an aryl group or a bicyclic substituent;

R<sub>12</sub> is hydrogen, or a substituted or unsubstituted alkyl, cycloalkyl, aryl or heterocyclic group or R<sub>12</sub> and T can form a ring;

T is a substituted or unsubstituted alkyl, cycloalkyl, aryl or six-membered heterocyclic group, t is 0, 1, or 2, ~~with the proviso that when X is a cyano or sulfonyl group t is 1 or 2, and~~ when t is 2 the two T groups can combine to form a ring;

X is divalent, a is 2, and b is 1;

where LINK 1 and LINK 2 is independently of Structure II:



II

wherein

$X'$  represents carbon or sulfur;

$Y'$  represents oxygen, sulfur or  $N-R_1$ , where  $R_1$  is substituted or unsubstituted alkyl or substituted or unsubstituted aryl;

$p$  is 1 or 2;

$Z$  represents carbon, oxygen or sulfur;

$r$  is 0 or 1;

with the proviso that when  $X'$  is carbon, both  $p$  and  $r$  are 1, when  $X'$  is sulfur,  $Y'$  is oxygen,  $p$  is 2 and  $r$  is 0;

$\#$  denotes the bond to PUG (for LINK 1) or TIME (for LINK 2);

$\$$  denotes the bond to TIME (for LINK 1) or  $T_{(n)}$  substituted carbon (for LINK 2); and

wherein, in a photothermographic element, said imaging layer comprises a light-sensitive silver-halide emulsion, a non-light-sensitive organic silver salt oxidizing agent, and a reducing agent for reducing silver ion to metallic silver which may be the compound of structure I and/or an additional material; and wherein, in a thermographic element, said imaging element comprises a light-sensitive silver-halide emulsion, a non-light-sensitive organic silver salt oxidizing agent, and a reducing agent for reducing silver ion to metallic silver which may be the compound of Structure I and/or an additional material. --